Table 2:
Country of origin of medical equipment, 2015

No	Country of origin	Percent
1.	Turkey	2%
2.	UK/England	2%
3.	Korea	3%
4.	Taiwan	4%
5.	Italy	4%
6.	China	8%
7.	Germany	13%
8.	Japan	14%
9.	USA	14%
10.	Other 27 countries	9%
11.	Country of origin Is not known	27%

Medical equipment spare part, documentation and user manual

Availability of spare parts and documentation is very important for equipment maintenance. The inventory result shows that 2% of the equipment has no spare part. Regarding service and users' manual the assessment shows only 24% are having user manual and 11% of the registered equipment have service manual. This makes the equipment maintenance and utilization very difficult.

Recommendations

The following recommendations are identified from the inventory:

- Improve national medical equipment management through the implementation of medical equipment management guideline. That has guideline on establishment of unit, procedure from procurement to disposal, inspection system, and standard for after sales agreement.
- Improve medical equipment inventory data base management system for better decision making and planning.
- Improve Biomedical Equipment management capacity.
- Limit medical equipment brand and source of origin

Based on the inventory result MOH, RHB, Development partners are to coordinate their effort to enable hospitals to improve the equipment functionality status in particular and equipment utilization.

CASE STUDY OF MONITORING AND EVALUATION SYSTEM CAPACITY IN HEALTH SECTOR: **DATA DEMAND AND USE BY HEALTH PROGRAMS IN ETHIOPIA**

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Introduction

The Ministry of Health (MOH) reformed the Monitoring and Evaluation (M&E) business process in 2007 to address the efficiency and effectiveness of the M&E in the health sector. The M&E process is constituted of five elements namely: routine data collection and aggregation; performance monitoring; integrated supportive supervision; operational research and evaluation.[59] The implementation of the health institution and community-based health information system is primarily led by the Policy Planning Directorate and related agencies. On the other hand, surveys, operational research and program evaluations are led by Ethiopian Public Health Institute (EPHI) and health programs.

By the end of June 2015, almost all (98%) of the public health facilities and 23% of the private health facilities were implementing HMIS, and 77% of the health posts were implementing the community health information system. Currently, the electronic HMIS (eHMIS) is implemented in 77% of the health facilities with electricity. [60] The HMIS reform that took place in 2007 and the subsequent revision in 2013 has improved the data coverage as well as the timeliness and completeness of the HMIS reports. As part of the

[59]MOH, Business Process Re-engineering,2007

reform, the new system has also improved systematic performance monitoring, supportive supervision, and planning based on evidence. However, there are still gaps in areas of data quality, information use and triangulation of information.

Most of these findings about the HMIS performance are from routine data quality assessments, regional project reports and review meetings. These, however, do not clearly reflect the interest and perspective of program experts at the national level. Understanding the M&E capacity from the point of view of different health programs is essential to develop a robust M&E system capable of responding to the needs of the health sector transformation plan.

Hence, this study aims to explore the performance of the existing M&E system in the health sector of Ethiopia, and the future expectation of the programs and other systems of the MOH.

Method

A case study methodology was chosen for this study. Traditionally, programs such as EPI, Maternal Health and HIV/AIDS have vertical systems of managing their own information systems as well as the overall M&E. In that context, to make the health information system relevant and useful for program M&E, it is necessary to clearly understand how different health programs own and manage the M&E activity within their complex program management environment. Secondly, the programs greatly influence the M&E system, either supporting or hampering its performance. Thirdly, the programs are the users of the information system and the monitoring and evaluation findings. The case study methodology has the potential to be embedded within the various programs and, thereby, provide the opportunity for in-depth understanding of the role of monitoring and evaluation in dynamic program management environment, and to understand the varying M&E needs of programs according to the level of maturity of their respective M&E systems.

Focus group discussion and in-depth interview of team leaders from different directorates was carried out based on open-ended questionnaire with pre-identified sensitizing issues related to the overall M&E capacity of the public health sector and the expectation of the programs. The areas of interest included conceptualization of M&E, data quality, use of ICT, organizational structure, communication, and use of findings, feedback system, program monitoring, and M&E knowledge. The list of areas of study interest was first sent to the directorates to discuss within their unit and select individuals for interview and group discussion. Purposive sampling technique was used for the in-depth interview and focus group discussions. The selection was based on the responsibilities and position of respondents related to their program areas.

The study was undertaken in August 2015. The Directorates for Disease Prevention and Control, Maternal and Child Health, Health Extension Program, Special Support, Medical Service, Health Information Technology, Human Resource, and Gender and Youth Affairs were included for the study. A total of 9 group discussions and 9 in-depth interviews were conducted. Experienced and knowledgeable moderator and two note-takers were used to ensure the quality of data. Content analysis was performed manually to identify themes. Data captured were read carefully, categorized and summarized by thematic areas.

Results

Strengths: Improvement in coverage of the information system/HMIS, an increasing demand to use evidence for decision making, and promising efforts to use information technology were perceived as the strengths of the monitoring and evaluation practice. User friendly information technology is sought to dramatically improve the M&E capability of program experts.

Unreliable Information: The respondents pointed out that the routine information system often has wide variation from the population based survey in terms of coverage data. Also, there are inconsistencies among data from different source and in different reporting periods, and sometimes the coverage is more than the eligible and triangulation is found to be very difficult.

Depth: The respondents view that the data and information mainly coming through the information system (i.e. HMIS) are not analyzed and interpreted to propose alternative solutions for decision making. Program managers merely look at the figures or tables, but they are too shallow to make sound decisions. Currently, mostly hearsays and expert judgment are taken into considerations for decision making. One of the reasons proposed for this is inadequate knowledge in HMIS/ monitoring and evaluation within the program staff.

Though vital for identifying operational or system challenges to take corrective action, integrated supportive supervision is deficient to provide

[69]MOH, Annual Performance Report, EFY 2015

technical programmatic support and lacks focus on addressing prevailing conditions at ground level.

In case of operational research or evaluation, respondents from various programs experience that only few evaluation or operational researches are conducted with need-based research agenda, and that the findings are seldom utilized for programming or operational management.

Continuity

There is discontinuity in M&E. Programs life cycle embrace designing, planning, implementing, monitoring, evaluation and learning. The dynamic and complex relationship between the components is expected to be managed by evidences and insights from M&E. However, M&E findings are not responding to the need in timely manner, there is weak feedback mechanism (open feedback loop) and decision are not well converted in to appropriate actions, and actions are not followed. Reporting and review meetings are becoming the end than the means for M&E. Besides, M&E plans are prepared not at the beginning of program design, and this hinders its role in proactive "feed forward" leadership and management of programs.

Misalignment

Efforts towards program management, and monitoring and evaluation are often not aligned. Actions taken by programs sometimes contradict with the actual demand of the situation. Variations in data accuracy, intention to measuring and focusing on routine activities, reliance on expert judgment, lack of use of data during partners meeting, and dependence on old population based data are explained as causes for misalignment. Absence of guidance by program logic model or conceptual framework is also identified as challenges. Programs believe HMIS should address all their information demand for program management.

Health System

M&E system primarily focus on programs. Mainly the performance of programs and health condition of the community are captured in HMIS. M&E is not focusing on health system such as human resource, pharmaceutical, financial systems. Besides, interaction between different system components and their contribution to program improvement are not well addressed in the M&E of the health sector. An issue worth mentioning here is expectation of special support programs. They view of M&E being not responding to the need and maturity of program implementation in pastoralist community. For instance, the pastoralist communities are living by moving from place to place and they are geographically scattered, however the information system do not capture health undertaking at community level.

Organization

M&E/ health information system organizational platforms are not well understood and functional. At national level the M&E case team is organized under PPD. Though improving through time, the communication and interface between programs and M&E case team is not adequate. At regional level, the M&E structure is a support process that is developed by the regional finance bureau. The human resource requirements do not fit with the MOH process. At lower level, there are HIT professionals and HMIS focal persons. Program experts feel that though there is a guide to establishment of performance review teams (PRT), they are not functional in most of the facilities. In facilities where there are functional PRT, they are not performing as per standard to ensure data quality and guide decision making. Programs suggest the need for regulation or policy to ensure accountability, data quality and improve information use culture in the political, social and contextual factors.

Conclusion

The case study findings mirror the views and experience of programs and their high level of expectations from the monitoring and evaluation system. Key issues relate directly to the information systems are, data coverage, accuracy, consistency and triangulation. On the other hand, key issues relate to the internal dynamics and management environment within the programs; for instance the absence of detailed-out program logic/conceptual models and their relationship with program M&E, and weak feedback mechanisms.

The findings of this case study can provide the necessary platform for bringing together the M&E/ information system experts and program experts to build a common understanding of the M&E systems and to direct efforts towards a harmonized M&E system for the Ministry of Health that caters to the specific needs of each health program.